

CLAIMS

1. **(Currently Amended)** A method for obtaining a DNA complementary to a mRNA, the method comprising:

contacting the mRNA having a polyadenosine (polyA) tail with a primer mixture, the mixture comprising a plurality of primers wherein each primer comprises at least 5 contiguous deoxythymidines at a 3' end of the primer, and at least 2 independently selected non-deoxythymidine nucleotides ~~near one end~~ positioned 3' of the contiguous deoxythymidine nucleotides, wherein the non-deoxythymidine nucleotides comprise a sequence selected from the group consisting of VV, VTV, VTVV, VTVVV, VTVVT, VTTV, VTTT, VVTVV, and VVVVV and combinations thereof, wherein V is deoxyadenosine, deoxycytidine, or deoxyguanosine; and

reverse transcribing the mRNA using a reverse transcriptase to produce a DNA strand complementary to the mRNA.

2. **(Original)** The method of claim 1, wherein each primer further comprises a restriction enzyme sequence near the end opposite to the one containing the non-deoxythymidine nucleotides.

3. **(Original)** The method of claim 2, wherein the restriction enzyme sequence is double stranded.

4. **(Original)** The method of claim 1, wherein each primer comprises at least 10 contiguous deoxythymidines.

5. **(Original)** The method of claim 1, wherein each primer comprises at least 15 contiguous deoxythymidines.

6.-7. **(Canceled)**

8. **(Currently Amended)** The method of claim 1, wherein the mixture comprises about 10-25 % of a primer having a ~~3'~~-VV, about 0.5-10 % of a primer having a ~~3'~~-VTV, about 0.1-5 %

of a primer having a 3'-VTTV, about 0.001-0.5% of a primer having a 3'-VTTTV, and ~~upto up to~~ about 95 % of a primer having a 3'-VVVVV, wherein V is deoxyadenosine, deoxycytidine, or deoxyguanosine.

9. (Currently Amended) The method of claim 8, wherein the mixture comprises about 15-20 % of a primer having a 3'-VV, about 3-6 % of a primer having a 3'-VT, about 0.5-3 % of a primer having a 3'-VTTV, about 0.005-0.05% of a primer having a 3'-VTTTV, and about 60-80 % of a primer having a 3'-VVVVV, wherein V is deoxyadenosine, deoxycytidine, or deoxyguanosine.

10. (Currently Amended) A method for obtaining a DNA complementary to a mRNA, the method comprising:

contacting the mRNA having a polyA tail with a primer mixture comprising a plurality of primers wherein each primer comprises at least 10 contiguous deoxythymidines and a non-polyA-complementary region near one end, wherein the non-polyA-complementary region is selected from the group consisting of 3'-VV, 3'-VT, 3'-VTV, 3'-VTVV, 3'-VTVVV, 3'-VTVVT, 3'-VTTV, 3'-VTTTV, 3'-VVTVV, and 3'-VVVVV, and combinations thereof, wherein V is deoxyadenosine, deoxycytidine, or deoxyguanosine; and

reverse transcribing the mRNA using a reverse transcriptase to produce a DNA strand complementary to the mRNA.

11. – 17. (Canceled)

18. (New) The method of claim 10, wherein the restriction enzyme sequence is double stranded.

19. (New) The method of claim 10, wherein each primer comprises at least 15 contiguous deoxythymidines.

20. (New) The method of claim 10, wherein the mixture comprises about 10-25 % of a primer having a VV, about 0.5-10 % of a primer having a VTV, about 0.1-5 % of a primer

having a VTTV, about 0.001-0.5% of a primer having a VTTTV, and up to about 95 % of a primer having a VVVVV, wherein V is deoxyadenosine, deoxycytidine, or deoxyguanosine.

21. (New) The method of claim 10, wherein the mixture comprises about 15-20 % of a primer having a VV, about 3-6 % of a primer having a VTV, about 0.5-3 % of a primer having a VTTV, about 0.005-0.05% of a primer having a VTTTV, and about 60-80 % of a primer having a VVVVV, wherein V is deoxyadenosine, deoxycytidine, or deoxyguanosine.

REMARKS UNDER 37 CFR § 1.111

Formal Matters

Claims 1-5 and 8-10 and 18-21 are pending after entry of the amendments set forth herein.

Claims 1 and 8-10 are amended, claims 6-7 canceled without prejudice, and new claims 18-21 added.

Claims 1-6 were rejected. Claim 10 was allowable over the prior art, and claims 7-9 objected to as being dependent on a rejected independent claim.

Claim 1 is amended to incorporate the limitations of original claim 7. Support for this amendment is found throughout the specification, and particularly in claim 7 as originally filed. Claims 8-10 are amended to provide for further clarification. only.

Support for new claims 18-21, which depend on claim 10, is found throughout the specification and particularly, for example, in original claims 3, 5, 8 and 9.

Applicants respectfully request reconsideration of the application in view of the remarks made herein.

No new matter has been added.

Claim Number and Telephonic Interview

The Office Action requests clarification regarding the Preliminary Amendment. The Preliminary Amendment intended to represent the pending claims without amendment, so as to provide a complete set of the pending claim.

During a telephonic interview with Examiner Whisenant, he explained that the numbering of the claims in the text of the Office Action was in error, and that reference to claims 18-27 instead should refer to claims 1-10, respectively.

Allowable Subject Matter

Applicants express their gratitude to the Examiner for indicating that claim 10 (referred to as claim 27 in the Office Action) was allowable over the prior art of record. In addition, the Examiner indicated that claims 7-9 (referred to as claims 24-26 in the Office Action) are

objected to as being dependent upon a rejected independent claim; however, these claims are not rejected based on the prior art.

Claim 1 is amended herein to incorporate the limitations of claim 7, and dependent claims 8 and 9 amended to depend on amended claim 1.

New dependent claims 19-21, which depend on allowable claim 10, correspond in language to claims 3, 5, 8 and 9.

Applicant respectfully submit that the pending claims as presented herein are in form for allowance.

Rejections Under §102 and §103

Claims 1, 4 and 6 (referred to as claims 18, 21 and 23 in the Office Action were rejected under §102(b) as being anticipated by Pardee et al. (US 5,665,547).

Claims 1-6 (referred to as claims 18-23 in the Office Action) were rejected under §102(b) as being anticipated by Peterson et al. (Dec 1998).

Claims 2, 3 and 5 (referred to as claims 19, 20 and 22 in the Office Action) were rejected under §103(a) as being obvious Pardee et al. and further in view of Hwang et al. (1994).

Applicants respectfully submit that each of these rejections of the claims has been addressed by amendment of claim 1 to incorporate the limitations of the allowable claim 7, making claim 1 allowable over the art. Claims 2, 3, and 5 depend from claim 1, and thus are likewise allowable over the art.

In view of the above, the Examiner is requested to withdraw the rejections of the claims under §102 and §103.

Rejection for Obviousness-Type Double Patenting

Claims 1-10 were rejected under the doctrine of obviousness-type double patenting in view of claims US 6,387,624 ('624). This rejection is respectfully traversed.

The present application was filed as a divisional application of U.S. application serial no. 09/549,770 ('770), which issued as the '624 patent. During prosecution of the '770 application, the Office set out a restriction requirement as follows:

Group I, including claims 1-10, drawn to a method of obtaining a DNA complementary to mRNA;

Group II, including claims 11-17, drawn to a method of producing unidirectionally cloned cDNA libraries.

The '624 patent issued with the claims of Group II. The claims of the present application are those of Group II. In view of the facts of this case, a rejection for obviousness-type double patenting of the present claims in view of the claims of the '624 patent is not proper. See 35 U.S.C. §121, and MPEP § 804.¹

Withdrawal of this rejection is respectfully requested.

¹ 35 U.S.C. § 121 states in relevant part:

If two or more independent and distinct inventions are claimed in one application, the Director may require the application to be restricted to one of the inventions. If the other invention is made the subject of a divisional application which complies with the requirements of §120 of this title it shall be entitled to the benefit of the filing date of the original application. A patent issuing on an application with respect to which a requirement for restriction under this section has been made, or on an application filed as a result of such a requirement, shall not be used as a reference either in the Patent and Trademark Office or in the courts against a divisional application or against the original application or any patent issued on either of them, if the divisional application is filed before the issuance of the patent on the other application.

(emphasis added)

Conclusion

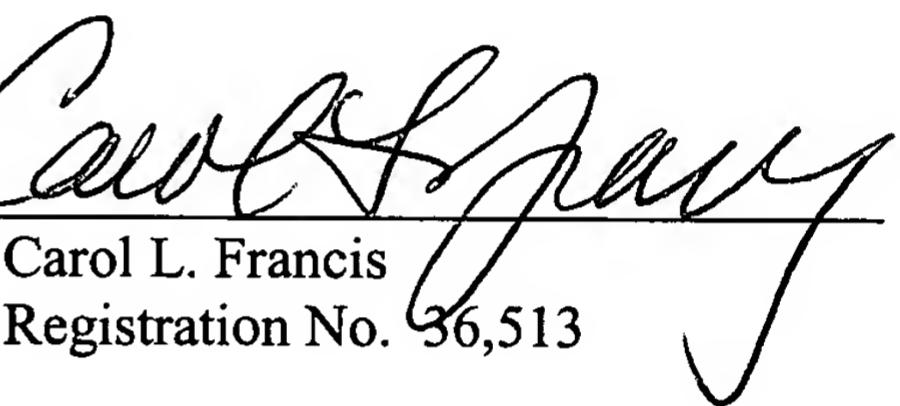
Applicant submits that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, please telephone the undersigned at the number provided.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-0815, order number 6514-089DIV.

Respectfully submitted,
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Date: August 5, 2003

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